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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/495,407	01/31/2000	Keith Stivers	OSI-2300/2310	4823

7590

04/06/2004

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EXAMINER

WHITE, CARMEN D

ART UNIT	PAPER NUMBER
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3714

DATE MAILED: 04/06/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/495,407

Applicant(s)

STIVERS ET AL.

Examiner

Carmen D. White

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28, 33-51, 53-54, 56-62, 64, 65, 67-73, 77-88 and 90-94 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-28, 33, 60-62, 64, 65, 67-73, 77-81, 83 and 85 is/are allowed.
- 6) ☒ Claim(s) 34-51, 53, 54, 56-59, 82, 84, 86-88 and 90-94 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date attached
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 34-51, 53-54, 56-59, 82, 84, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chang** et al (5,342,054) in view of **Sullivan** et al (4,158,853), further in view of **Balmat** (5,713,799).

Regarding claims 34-51, 53-54, 56-59, 82 and 84, Chang and Sullivan teach all the limitations of the claims as discussed in the previous office actions (papers #9, 13, and 17), which are incorporated herein by reference. As discussed in the last office action (paper #17- dated November 24, 2003), While Sullivan teaches the use of a marking {spot} (#36) on a ball that a processor uses to determine the spin of the ball based on determination of at least one characteristic of the marking on images captured with the camera (#20) (col. 5, lines 35-42); said at least one characteristic including orientation {X/Y position} of the said marking (Fig. 2). However, Sullivan is silent regarding the explicit teaching of the feature of the at least one marking being at least halfway circumambulatory of the surface of the golf ball. In an analogous golf assistance system, Balmat teaches the use this type of a marking {elongated stripe} (lines 1-5 of abstract; Fig. 3; Fig. 4). It would have been obvious to a person of ordinary skill in the art at the time of the invention to employ a stripe, as taught by Balmat, in

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place of the spot of Sullivan in order to provide a marking that covers a greater area on the ball, which would increase the accuracy of the coordinate detection of the marking on the ball.

Claims 86-88 and 90-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sullivan** et al (4,158,853) in view of **Balmat** (5,713,799).

Regarding claims 86-88 and 90-94, Sullivan and Balmat teach all the limitations of the claims as disclosed in previous office actions, which are incorporated herein by reference, as well as discussed in the above claim rejections.

Allowable Subject Matter

Claims 1-28, 33, 60-62, 64-65, 67-73, 77-81, 83 and 85 are allowed.

Applicant is directed to the last office action (paper #17, 11/24/03), which is incorporated herein by reference for the reasons for indication of allowable subject matter.

Examiner's Response to Applicant's Remarks

Applicant argues that *Chang does not monitor ball spin*. The examiner recognizes this and has cited Sullivan, above, as well as in previous office actions to teach the monitoring/determination of ball spin (see paper #9). Applicant further argues that Sullivan does not disclose the use of a single elongated marking such as a stripe. Again the examiner agrees. Balmat is cited for teaching this feature (see above and in the previous office action, paper #17). Applicant disagrees with the examiner's combination of the Sullivan and Balmat references to teach the instant claim limitations of claims 34 and 86 and the claims that depend therefrom. The examiner asserts

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Sullivan teaches the determination of the spin of the ball based on at least one characteristic of a marking {spot} in the images of a ball. However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to substitute a stripe as taught by Balmat in place of the spot as the marking in Sullivan. The examiner has removed the rejection of the instant claims using the Matsutani reference because Balmat better teaches the feature of an elongated stripe.

The examiner suggests that Applicant replace the feature of "orientation and/or curvature of said stripe" with just *—curvature of said stripe—* to better distinguish over the prior art of record.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

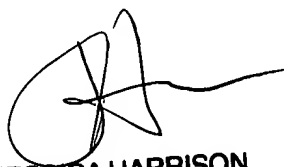
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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USPTO Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Hughes who can be reached on 703-308-1806. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


CDW
JESSICA HARRISON
PRIMARY EXAMINER